# **PEDICULOSIS** (Outbreaks only)

1. **Agent**: Pediculus humanus capitis, the head louse; Phthirus pubis, the pubic louse; Pediculus humanus corporis, the body louse.
2. **Identification**:
   a. **Symptoms**: Itchiness (or may be asymptomatic) or infestation of the scalp or the hairy parts of the body (including eyebrows) with adult lice, larvae, or nits (eggs). Sores on the head caused by scratching. Patients with pubic lice may have bluish-colored macules on chest, abdomen, or thighs (maculae ceruleae).
   b. **Differential Diagnosis**: Scabies, eczema, impetigo, and insect bites.
   c. **Diagnosis**: Visualization of nits or lice microscopically or clinically. These are commonly found behind the ears and near the back of the neck.
3. **Incubation**: From egg (nit) to first nymph is 6- 9 days. It takes 2-3 weeks from hatching of eggs to mature louse capable of reproduction.
4. **Reservoir**: Human. Children ages 3–11 years are considered highest risk.
5. **Source**: Infested person.
6. **Transmission**: Direct contact with hair of infested person; less commonly, indirect contact with their personal belongings, especially head coverings, clothing, combs, brushes, helmets, and head phones. Lice cannot jump or fly.

   Lice is not typically an environmental concern. It is most commonly a sign of neglect from their host individual.
7. **Communicability**: While viable lice and eggs remain on infested person and clothing. (Head lice survive only 1-2 days away from the scalp, and nits are unlikely to hatch away from the scalp.)
8. **Specific Treatment**: Permethrin lotion 1% (Nix® creme rinse), or pyrethrin (RID®, A-200®, R&C®) pediculicidal shampoo can be used to treat both head and pubic lice. Treatment may need to be repeated one week later for resistant or newly hatched lice, as it does not affect nits. Results are best when combined with nit combing every 3 days for 2 weeks.

   Permethrin is approved for use on children 2 months of age and older.

   Spinosad topical suspension, 0.9% (Natroba®) is approved for the treatment of children 6 months of age and older. It is applied and worked through dry hair, and may not require nit combing or repeat treatment.

   Ivermectin lotion 0.5% (Sklice™) is FDA approved for children 6 months of age and older. The prescribed lotion is applied to dry hair, thoroughly coating the hair and scalp, then removed after 10 minutes.

   Benzyl Alcohol Lotion 5% (Ulesfia® Lotion) applied to the scalp and hair is a prescription medication for treatment of head lice in children over 6 months of age and adults.

   Treatment may need to be repeated one week later for resistant or newly hatched lice.

   Results are best when combined with nit combing every 3 days for 2 weeks. It can be irritating to the skin.

   Treatment with Malathion lotion (Ovide®) may be considered when other treatment failures occur. Ovide® is not indicated for neonates or infants. While it has the benefit of effectiveness on nits, it must be followed with caution as the lotion is flammable. Do not expose the lotion and wet hair to open flames or electric heat sources, including hair dryers and electric curlers. Do not smoke while applying lotion or while hair is wet; allow hair to dry naturally and remain uncovered after application.

   Body lice need no specific treatment except improving hygiene and cleaning clothes.
9. **Immunity**: None.

## REPORTING PROCEDURES

1. **Outbreaks reportable**. *California Code of Regulations*, Section 2500. Investigation can be conducted by telephone. In-person site visits might be considered for locations that require extra guidance, have special considerations, or if requested.
2. **Outbreaks** include 5 or more epi-linked confirmed or suspected cases with symptoms consistent of lice occurring within a 2-week period. In settings where an epi-linked group is fewer than 15 people (such as a single classroom, sports team, or after school group), the minimum number of cases required to open an outbreak is lowered to 3.
3. **Report Form:** OUTBREAK/UNUSUAL DISEASE REPORT (CDPH 8554) (outbreaks only).

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4. **Epidemiologic Data**:
   a. Site of infestation.
   b. Contact with infested persons or fomites.
   c. School or other group contacts should be identified (e.g. day-care centers).

No line list is required.

## CONTROL OF CASES, CONTACTS & CARRIERS

LA County DPH and the CDPH do not require exclusion or isolation of cases and contacts. Risk of lice transmission in congregate settings such as schools is low, and exclusion can have adverse effects on academic, social, and emotional well-being. Additional information can be found within the CDPH Lice Guidance and CDC Information for Schools.

### CASE:

1. Instruct patient, parent, or caregiver to treat infestation. Refer to the CDC Lice Treatment Page
2. If a child is found to have lice for 6 consecutive weeks or 3 separate months of a school year, they are considered chronic cases. Schools must identify these cases and consider the appropriate approach, which may include consideration of socioeconomic factors. This scenario may prompt consultation from school administration, social services, and/or the local health department.
3. With of the presence of pubic lice, testing for other sexually transmitted infections is recommended.

**CONTACTS**: Parents or caregivers may be notified of exposure and instructed to assess for lice infestation. These individuals should also be handed out educational material such as the CDPH Fact Sheet and the CDPH Head Lice Flyer.

Household members should be checked for head lice and treated if they have active lice.

Prophylactic treatment is not usually recommended; however, prophylactic treatment may be recommended for household members or other contacts who share the same bedding as infested individuals.

## PREVENTION-EDUCATION

1. Discuss the recognition of infestation, especially with school nurses or aides.
2. Instruct infested individuals or family to delouse head or body according to medical or label instructions. All active cases should be treated at the same time.
3. Consult with pediatrician or family physician, reporting to them any skin irritations. Do not repeat treatment unless indicated or instructed by the physician.
4. Launder bed linens, towels, and clothing at proper temperature (130˚F) then dry on hot cycle for at least 20 minutes; or dry clean or place items in tightly closed plastic bag for 2 weeks. Disinfest personal articles (combs, brushes, hair bands and barrettes, etc.) by boiling for 5 minutes or by soaking them in rubbing alcohol or Lysol® disinfectant for 1 minute. Vacuum rugs and upholstered furniture. Insecticide sprays are not recommended.
5. Advise parents to check child's scalp for lice and/or nits for 2 weeks following treatment.
6. CDPH and LA County DPH do not recommend no-lice nor no-nit policies. Refer to CDC Guidance for Schools
7. There is no convincing scientific evidence to support the use of household products or other alternative therapies (olive oil, mayonnaise, petroleum jelly) to cure infestations. Individuals should be treated with the over-the-counter medication listed above or what is prescribed by their medical provider.

## DIAGNOSTIC PROCEDURES

None other than clinical observation.